REMARKS

The Official Action mailed December 7, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on August 22, 2006, and July 7, 2008.

Claims 1-16 are pending in the present application, of which claims 1-8, 10, 12 and 13 are independent. Claims 1-10 and 12-16 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 1-3, 10 and 11 as obvious based on the combination of U.S. Patent No. 5,789,733 to Jachimowicz and U.S. Publication No. 2003/0052324 to Kimura. The Official Action rejects claims 5-7 and 13-15 as obvious based on the combination Jachimowicz, Kimura and U.S. Patent No. 4,575,621 to Dreifus. The Official Action rejects claims 4 and 12 as obvious based on the combination of Jachimowicz, Kimura and U.S. Patent No. 6,590,633 to Nishi. The Official Action rejects claims 8 as obvious based on the combination of Jachimowicz, Kimura, Nishi and Dreifus. The Official Action rejects claims 9 and 16 as obvious based on the combination of Jachimowicz, Kimura, Dreifus and U.S. Publication No. 2004/0152392 to Nakamura. The Applicant respectfully traverses the rejections because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1-3, 5-7, 10 and 13 have been amended to recite that the integrated circuit includes a power supply circuit configured to generate a power supply voltage by using an alternating voltage generated by the antenna. Independent claims 5-8 and 13 have been further amended to recite wherein the integrated circuit, the light-emitting element and the light-receiving element are attached to a substrate with an adhesive agent. Independent claims 4, 8 and 12 have been amended to recite that the integrated circuit comprises a connection terminal, a rectification circuit configured to rectify an alternating voltage generated by an antenna, a power supply circuit configured to generate a power supply voltage by using a voltage outputted from the rectification circuit, a demodulation circuit and a logic circuit. It is respectfully submitted that Jachimowicz, Kimura, Dreifus, Nishi and Nakamura, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Furthermore, independent claims 1-8, 10, 12 and 13 each recite an antenna. For the following reasons, it is respectfully submitted that Jachimowicz, Kimura, Dreifus, Nishi and Nakamura, either alone or in combination, do not teach or suggest an antenna.

The Official Action asserts that "Jachimowicz et al discloses ... an antenna 14 (Fig. 2, col. 3, lines 29-30)" (page 3, Paper No. 20091125). In response to the Applicant's prior argument that microchip 14 of Jachimowicz is not an antenna, the Official Action asserts that "Jachimowicz discloses on col. 3, lines 29-32 that microchip is capable of sending and receiving information to and from the remote reader/transmitter through the sensor pad 16 and light source 18" and that "it is clear from this language that the microchip works as an antenna in terms of plain meaning." (Id., page 10). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

An antenna is readily understood by one of ordinary skill in the art to be a type of transducer that transmits or receives electromagnetic waves having a particular range of frequency (i.e., radio waves). Jachimowicz instead discloses a microchip 14. A microchip does not act as a transducer and is not an antenna. More specifically, microchip 14 of Jachimowicz is intended to be utilized for "storing and processing information" (Jachimowicz at column 2, lines 49 and 50) and not for transducing electromagnetic waves. The microchip 14 of Jachimowicz is not an antenna. As Jachimowicz notes, "microchip 14 is only capable of sending and receiving information to and from the remote reader/transmitter through sensor pad 16 and light source 18" (Jachimowicz at column 3, lines 29 to 31, emphasis added). Therefore, contrary to the specious conclusion of the Official Action, Jachimowicz makes clear that microchip 14, itself, does not work as an antenna in terms of plain meaning.

In addition, the Official Action's apparent reliance on sensor pad 16 and light source 18 of Jachimowicz as components of an alleged antenna is further puzzling. An antenna, in its plain meaning, does not transmit and receive visible light. On the other hand, Jachimowicz describes light source 18 as a laser, capable of emitting visible light. (Jachimowicz at column 4, lines 6 to 29). Furthermore, in describing light source 18, Jachimowicz disparages the use of radio frequency communication (Id.). Therefore, it is respectfully submitted that sensor pad 16 and light source 18 were not intended to and

do not function as an antenna. The Applicant respectfully submits that Kimura, Dreifus, Nishi and Nakamura do not cure the deficiencies in Jachimowicz. Therefore, the Applicant respectfully submits that Jachimowicz, Kimura, Dreifus, Nishi and Nakamura, either alone or in combination, do not teach or suggest a semiconductor device comprising an antenna.

Since Jachimowicz, Kimura, Dreifus, Nishi and Nakamura do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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